

The comparison between BeAGLE and E665/HERMES

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Raw multiplicity distribution in different bins of W

Z. Phys. C 61, 179-198(1994)

Data sample:

$\mu^+ + \text{Xe}$

Beam momentum:

490 GeV \times 0 GeV

$0.1 < y < 0.85$

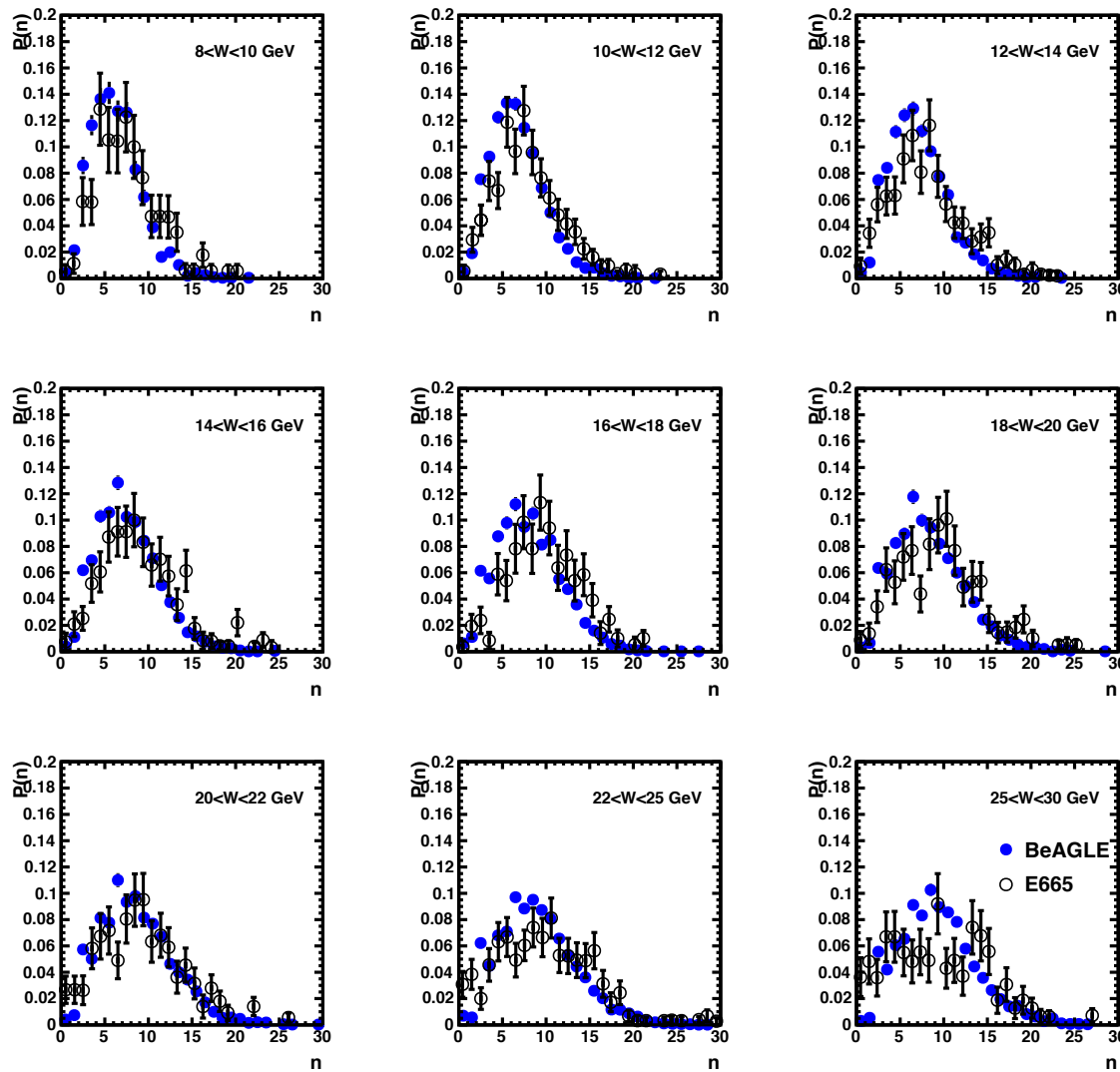
$1.0 < Q^2 < 100$

$0.0035 \text{ rad} < \theta < 6.29 \text{ rad}$

$8 < W < 30 \text{ GeV}$

$X > 0.002$

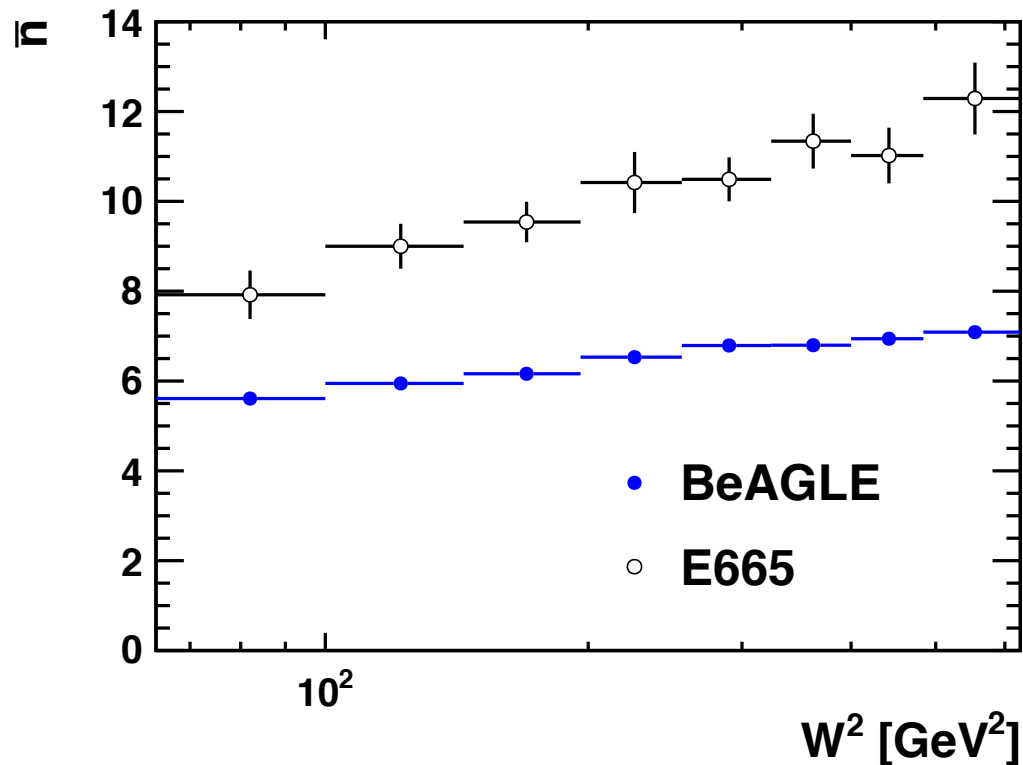
40K events



Average multiplicity

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The average multiplicity as a function of W^2 for mu+Xe:



The result of BeAGLE is lower than E665

Data sample:

e+Xe e+D

Beam momentum:

27.6 GeV × 0 GeV

$y < 0.85$

$1.0 < Q^2 < 100$

$W^2 > 4 \text{ GeV}^2$

$4 \text{ GeV} < \nu < 23.5 \text{ GeV}$

pdf: CTEQ6

40K events

$$R_A^h(\nu, Q^2, z, p_t^2) = \frac{\left(\frac{N^h(\nu, Q^2, z, p_t^2)}{N^e(\nu, Q^2)} \right)_A}{\left(\frac{N^h(\nu, Q^2, z, p_t^2)}{N^e(\nu, Q^2)} \right)_D}$$

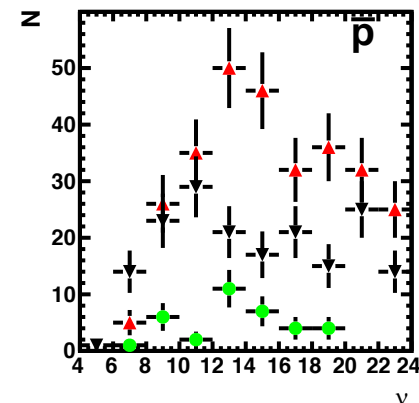
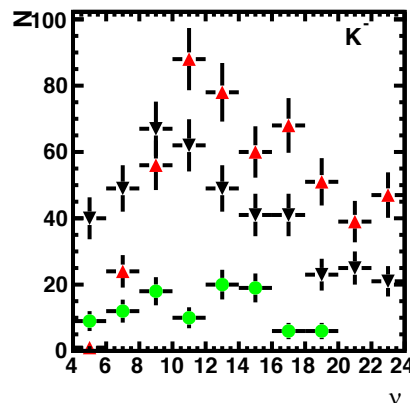
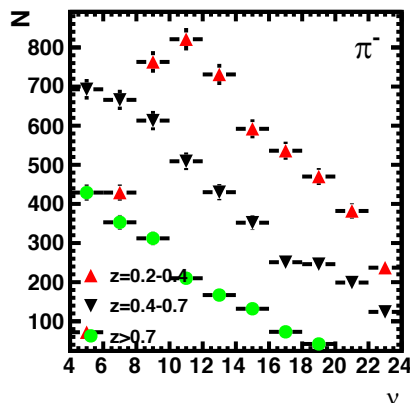
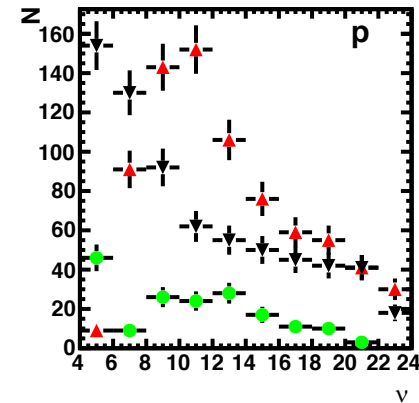
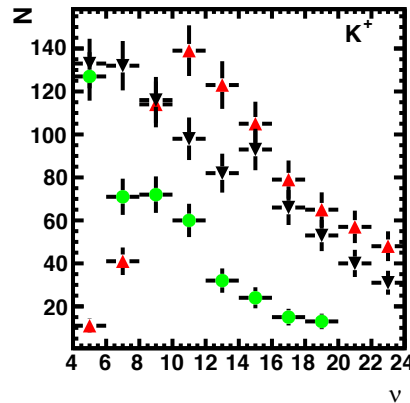
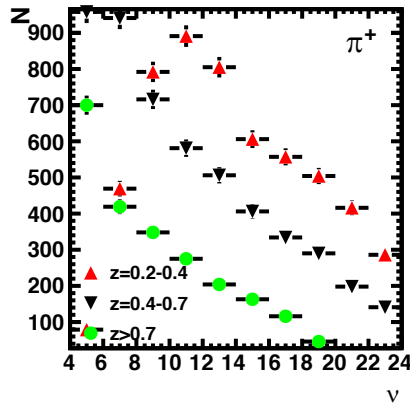
N^h : the number of hadrons in a given (ν, Q^2, z, p_t^2) bin

N^e : the number of scattering leptons in the same (ν, Q^2) bin

Hadron selection: $p_h = 2\text{-}15 \text{ GeV}$, $z > 0.2$

eXe: the dependence of N^h on ν

The dependence of N^h on ν for positively and negatively charged hadron for three slices in z : $z=0.2-0.4$; $z=0.4-0.7$; $z>0.7$

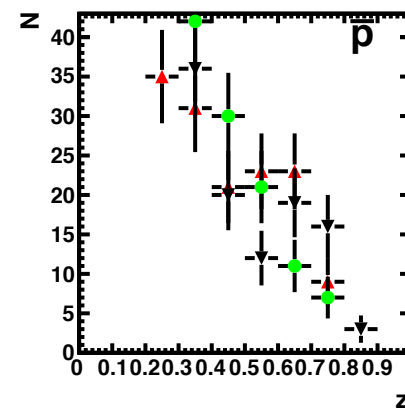
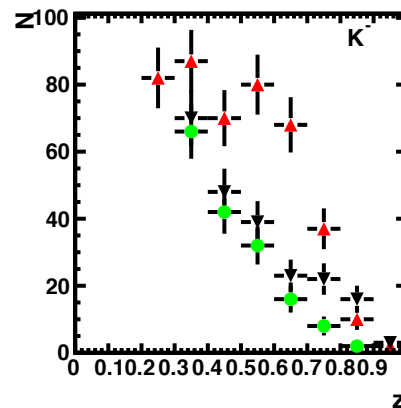
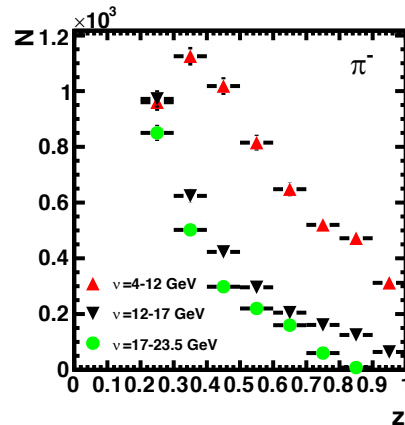
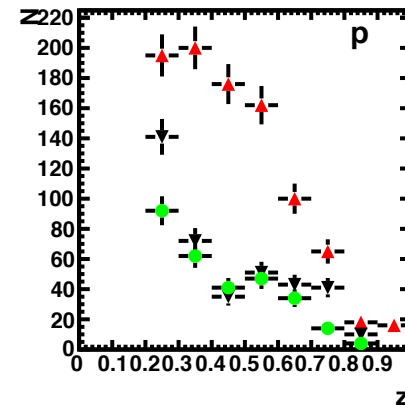
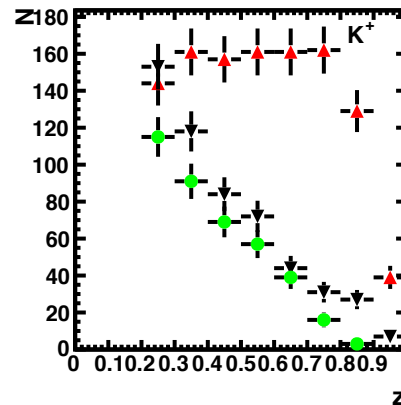
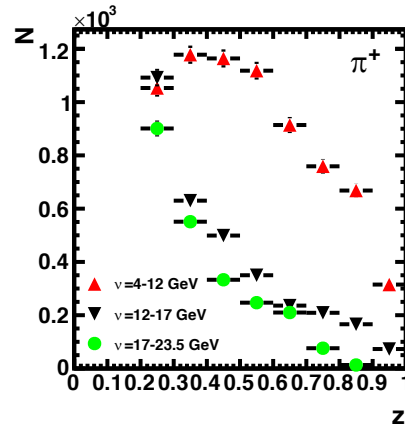


The momentum fraction of final state hadron with respect to the virtual photon:

$z=0.2-0.4$; $z=0.4-0.7$; $z>0.7$

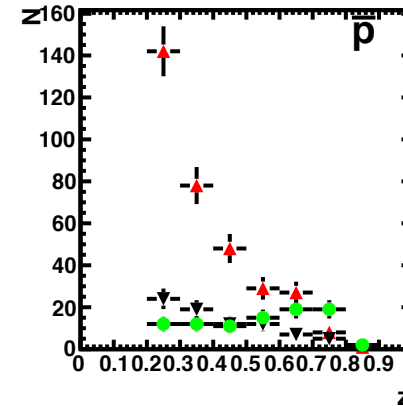
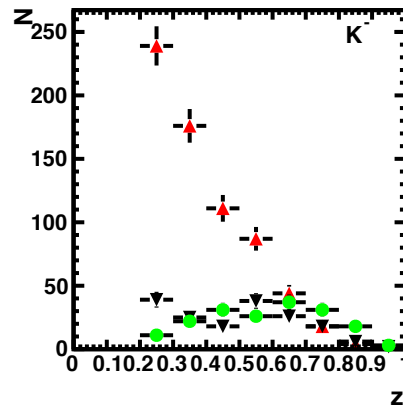
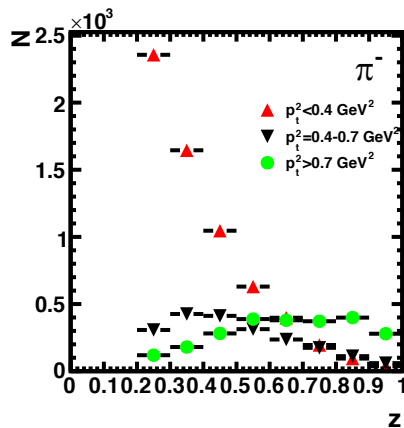
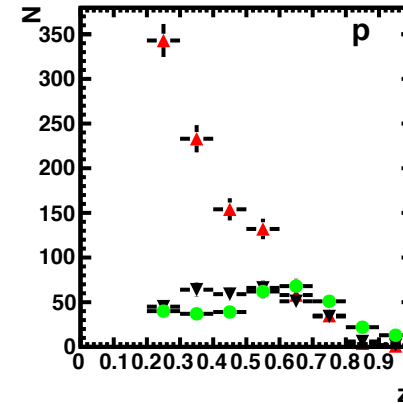
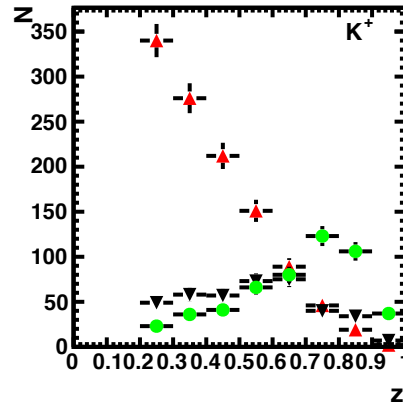
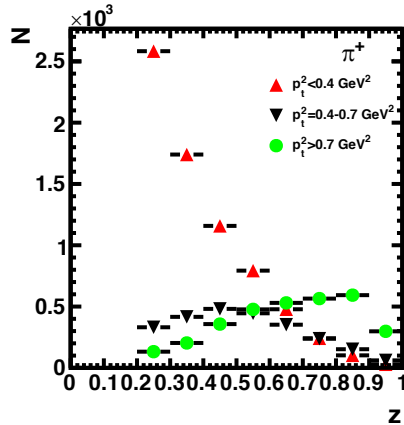
eXe: the dependence of N^h on z

The dependence of N^h on z for positively and negatively charged hadron for three slices in ν : $\nu=4-12$ GeV; $\nu=12-17$ GeV; $\nu=17-23.5$ GeV



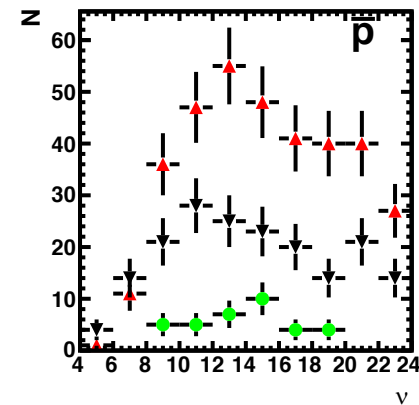
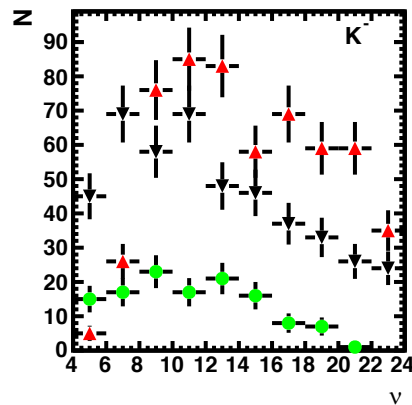
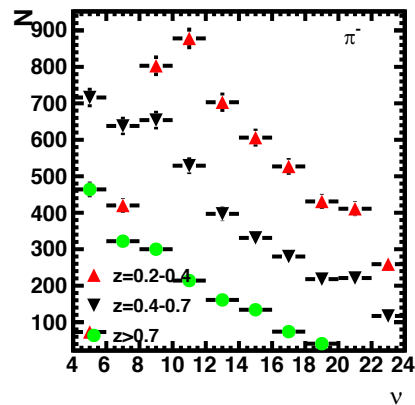
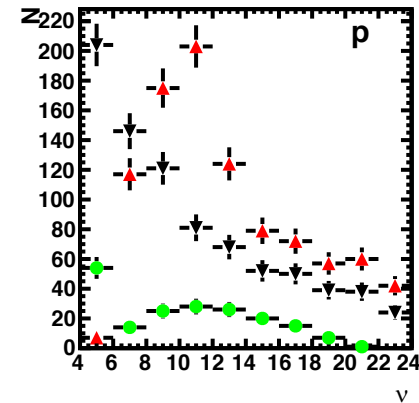
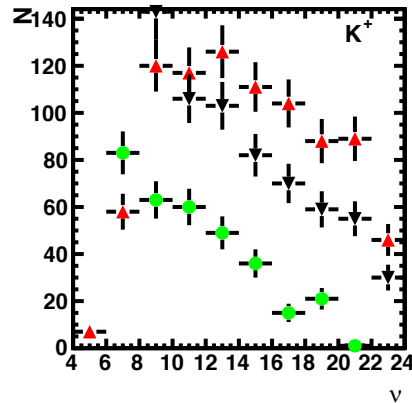
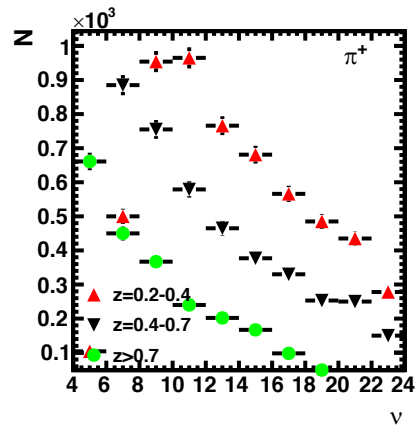
eXe: the dependence of N^h on z

The dependence of N^h on z for positively and negatively charged hadron for three slices in p_t^2 : $p_t^2 < 0.4 \text{ GeV}^2$; $p_t^2 = 0.4 - 0.7$; $p_t^2 > 0.7$



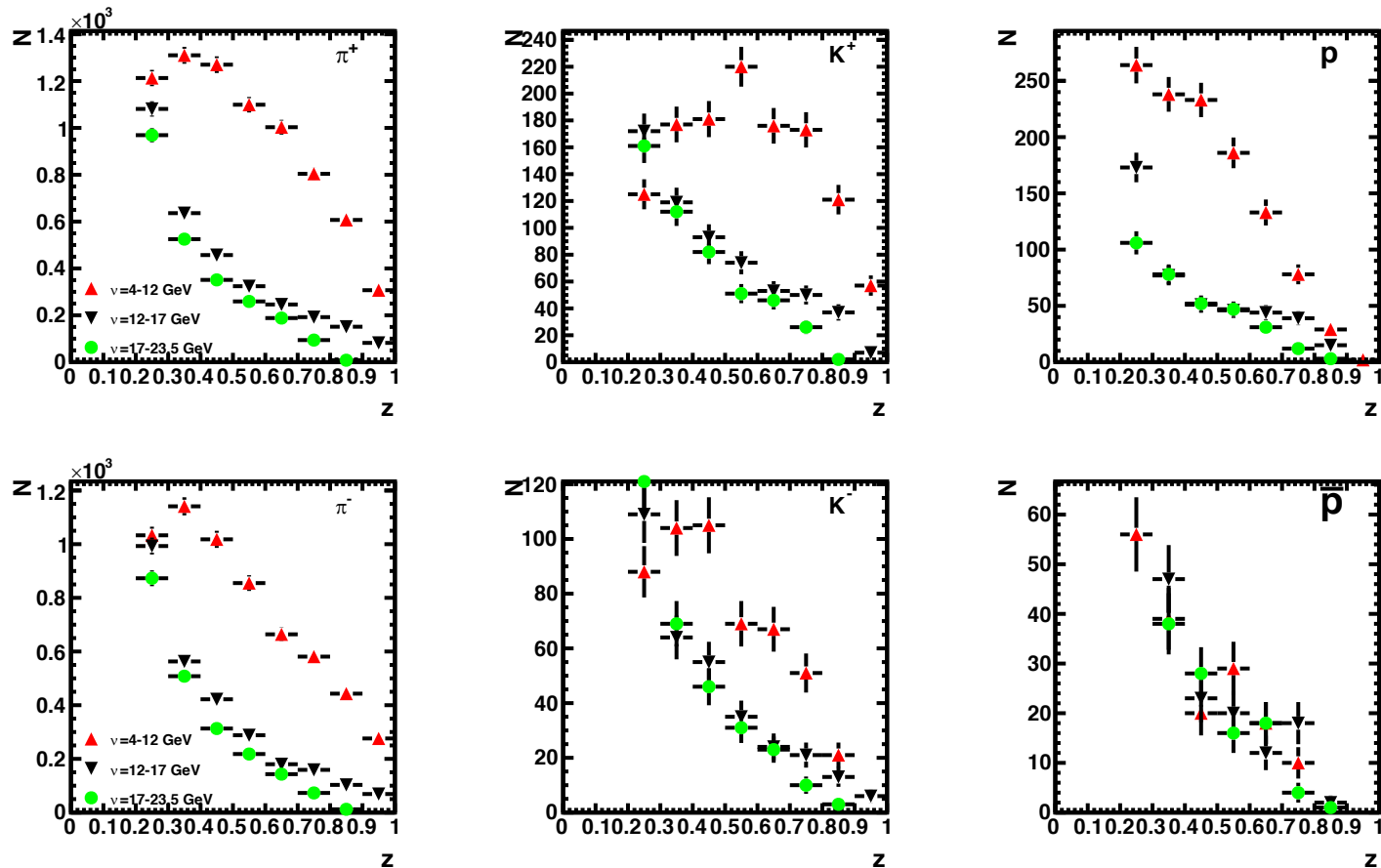
eD: the dependence of N^h on ν

The dependence of N^h on ν for positively and negatively charged hadron for three slices in z : $z=0.2-0.4$; $z=0.4-0.7$; $z>0.7$



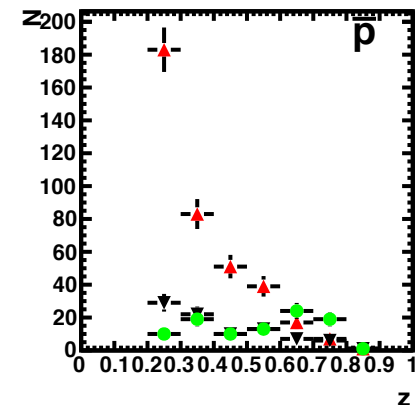
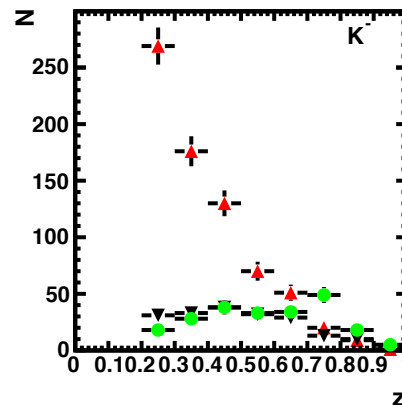
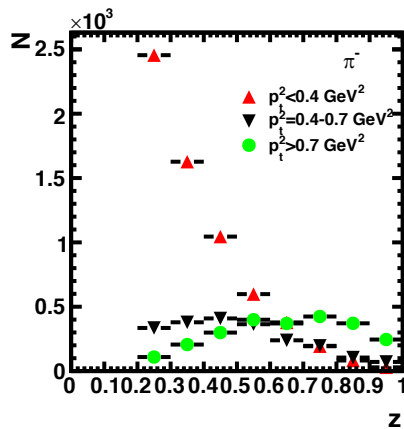
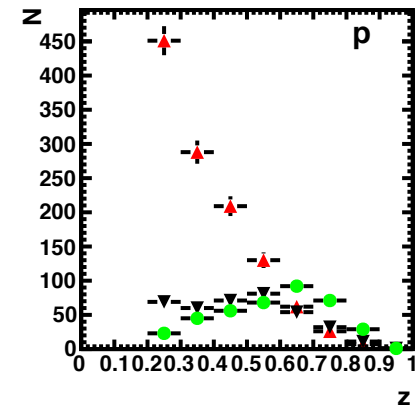
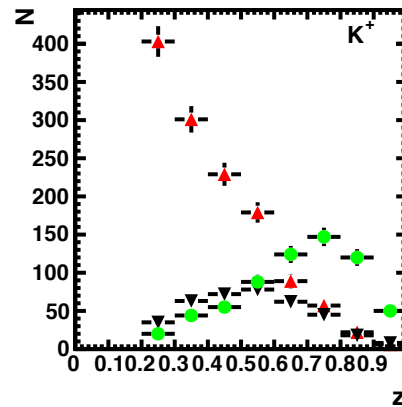
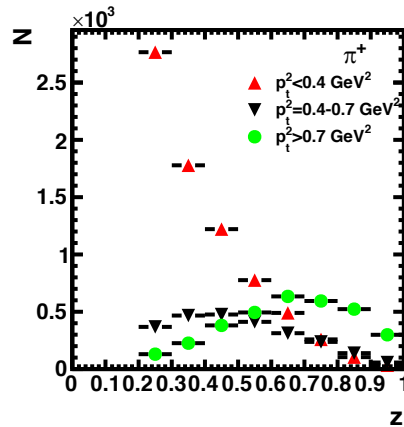
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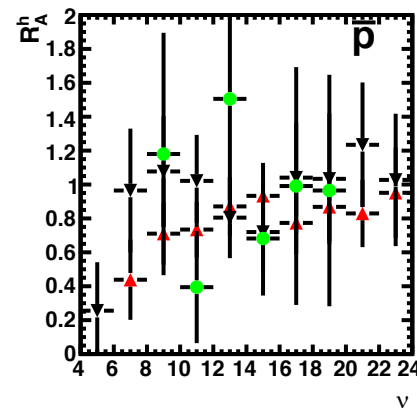
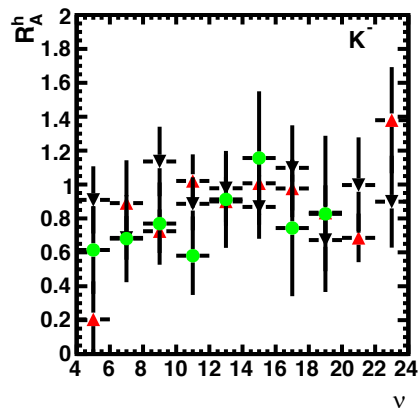
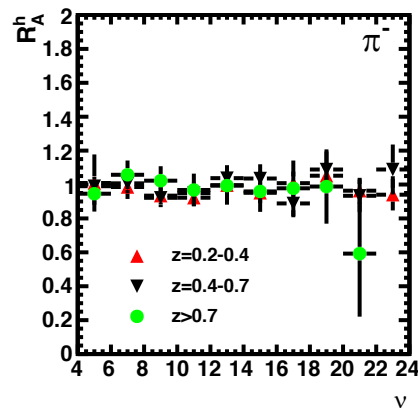
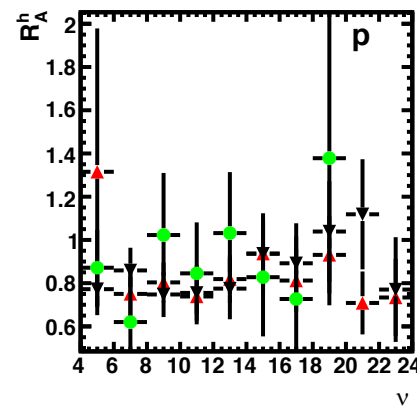
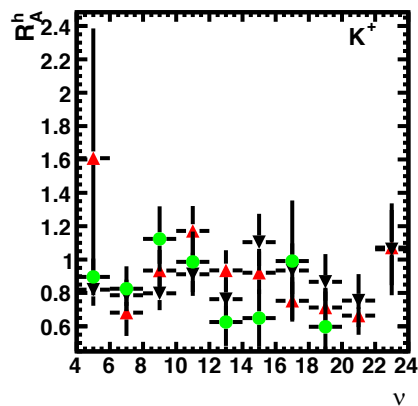
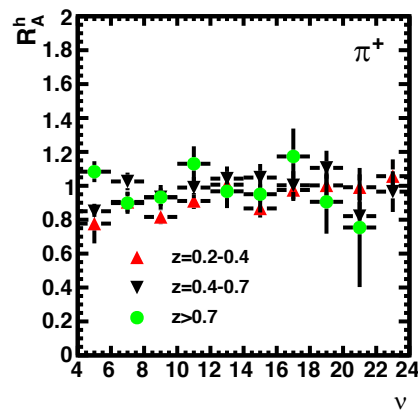
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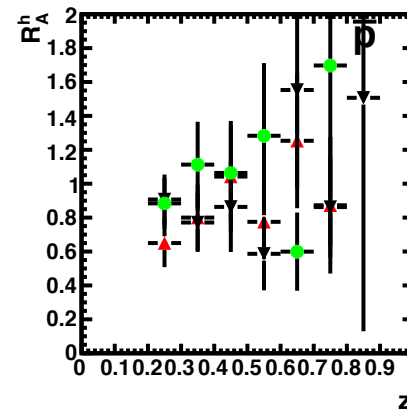
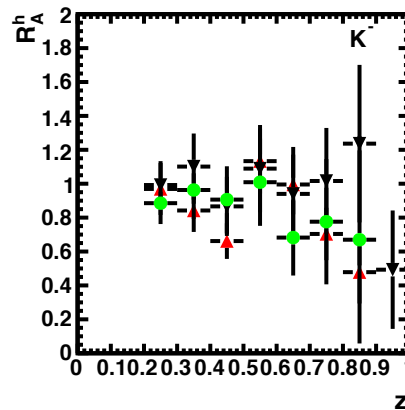
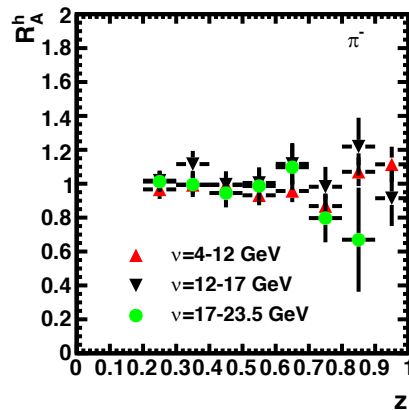
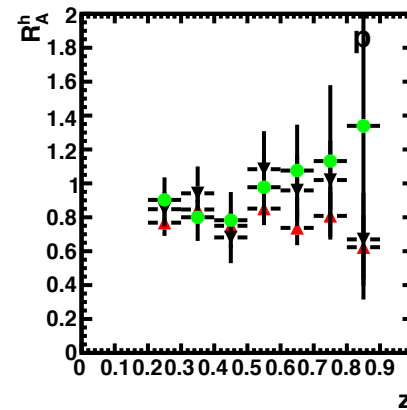
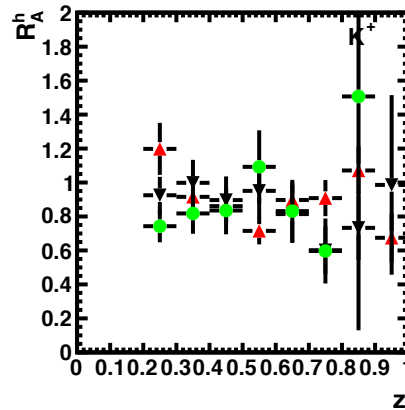
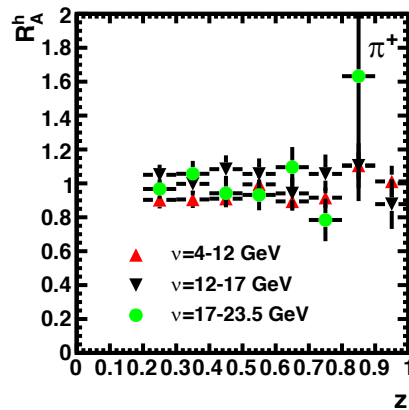
Multiplicity ratio of eXe/eD

The dependence of R_A^h on ν for positively and negatively charged hadron for three slices in z : $z=0.2-0.4$; $z=0.4-0.7$; $z>0.7$



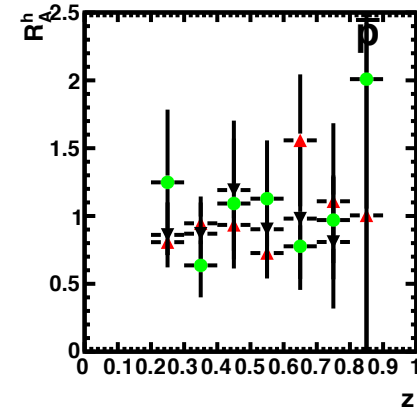
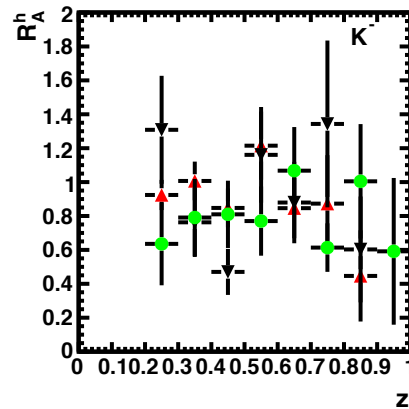
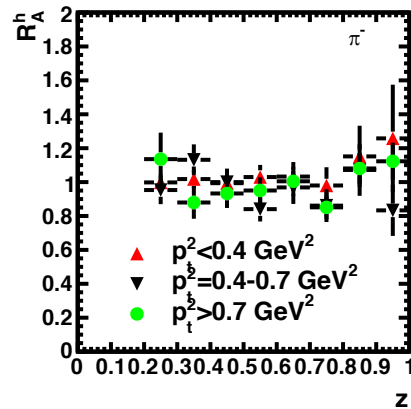
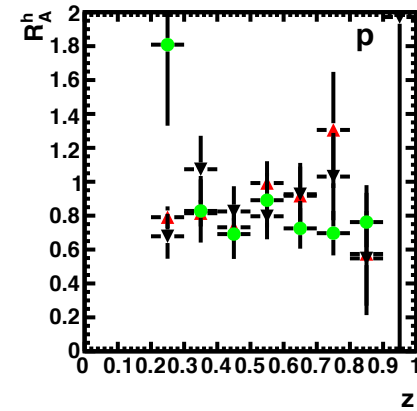
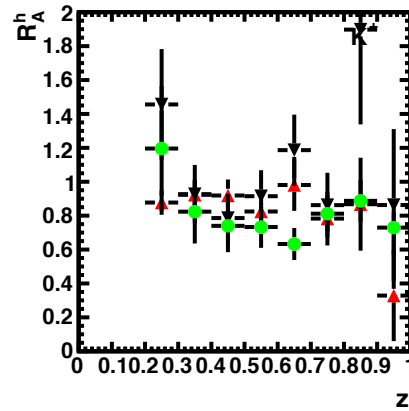
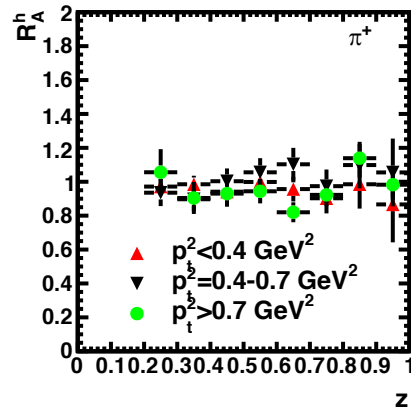
Multiplicity ratio of eXe/eD

The dependence of R_A^h on z for positively and negatively charged hadron for three slices in nu: $\nu=4-12$ GeV; $\nu=12-17$ GeV; $\nu=17-23.5$ GeV



Multiplicity ratio of eXe/eD

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Back up

Events information

Data sample:

$\mu^+ + \text{Xe}$

Beam momentum:

490 GeV \times 0 GeV

$0.1 < y < 0.85$

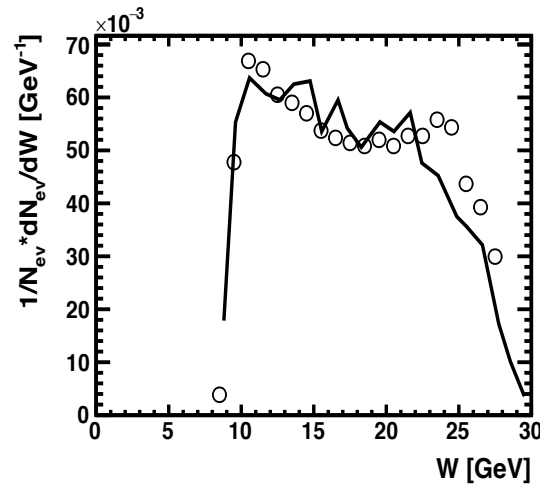
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